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Written Comments of Nuclear Information and Resource Service  
Supplement to Oral Comments September 19, 2002 in Charlotte, NC  
With Respect to Changes in NRC's Environmental Impact Statement on the MFFF  
(MOX Fuel Fabrication Facility)

September 30, 2002

Thank you for this opportunity to comment on NRC's new scope of examination given the Department of Energy's (DOE) redirection of the Surplus Plutonium Disposition Program. Current actions being taken by NRC's brother agency call into question all of the premises of the MOX program as initially launched. In particular is DOE's Notice of Intent to site a new plutonium pit production factory, with strong evidence suggesting that Savannah River site is the strongly preferred site for new nuclear bomb trigger production. Far from "swords into ploughshares" and fissile material security and safeguarding, as the MOX program was introduced, and as NRC staff still ascribe it to be (for instance the NRC meeting in North Augusta, SC in August, Drew Persenko gave nuclear nonproliferation as the MOX mission), we now see that MOX may be nothing more than a waste management scheme for new bomb production. Alternately, it may have been nothing more than a thin cover that may yet be cast aside. The only difference between "surplus" and "strategic" plutonium is a non-treaty "bi-lateral agreement."

While we endorsed NRC's freeze on the MOX license process while DOE clarified its new program, we believe it is even now too soon for NRC to be moving forward on a license consideration for the MOX Fuel Fabrication Facility until the rest of the plutonium related activities become clear.

This is particularly the case since NRC is construing some role for itself with respect to high-alpha waste stabilization and disposal. These activities are however part of the DOE's pit disassembly and conversation facility (PDCF), which is outside of NRC jurisdiction. It is entirely possible that DOE will choose to use the PDCF for processing the aging pits in the stockpile – all of which would have to be disassembled and "polished" like PDCF will be capable of before a replacement pit could be fashioned. This would be in addition to the production of new pits for already stated goals like the mini nukes for tactical deployment and nuclear tips for space based weapons.

Nuclear Information and Resource Service has commented in the past that the problem with the MOX program is that it opens the door to many other nuclear programs and that an honest NEPA analysis would consider the impacts of these other programs that are not readily accomplished without a MOX factory and become very much more so with it. In this category is the reprocessing of irradiated fuel, breeder reactors and now we see, a return to nuclear weapons production. You see, the immobilization of plutonium does not require purification of plutonium to any great degree. MOX fuel on the other hand, to be fissioned in a reactor must be "squeaky clean" plutonium...which as it so happens is also "designer" weapons grade plutonium: perfect for fabrication into new bombs.

If NRC is going to continue to support this perverse reversal of the stated nonproliferation goal of this program, then, in all honesty, NRC must look at the environmental impacts of new nuclear weapons production and use. There is no greater environmental impact on Earth than the detonation of a nuclear bomb. The analysis should be straightforward, a number of organizations have already done very credible work in this area – Natural Resources Defense Council, Physicians for Social Responsibility and others.

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Alternately, if NRC persists in the illusion that MOX is about getting rid of bombs, then it is very important that the public understand how the materials accounting is going to be accomplished. We are never going to believe that all of the waste that is generated at PDCF is from MOX if the pit plant is sited at SRS and operates concurrently with the MFFF.

On the other hand, if the pit plant is sited to operate consecutively with the MOX factory, as stated in one announcement, then this calls into question what the ultimate use of the MFFF is. After all, the contract that DOE let with DCS states only that they are to "deactivate" the facility. Not demolish or decommission. Is the MFFF itself going to be converted to part of the pit assembly facility? If so, that MUST be considered NOW. Any excuse that "it is not known" is simply legal / administrative pussy footing. Instead, NRC should table this process until the clouds clear and we see what the real deal is. Otherwise we are no better than Saddam and North Korea, using the civilian nuclear program to cover covert military nuclear operations.

When it comes to the alternatives, it is very important that immobilization be profiled in a fair and credible way. As we move forward there is a greater and greater need to figure out ways to isolate the burdens of the Atomic Age from our environment. Immobilization represents the best available technology for plutonium storage today, according to a number of independent experts and advocates. I repeat my suggestion that at this time a "reference" case be made for immobilization. Perhaps it would be possible to look at what if that facility was sited somewhere more central – say Colorado – or small operations at each plutonium site. Would the reduction in transport make up for the additional cost of multiple sites? What would happen if we ceased to assume that the tank material at SRS were the only source of the high-activity barrier? What about racks that hold irradiated fuel rods in the same canister with ceramic plutonium pucks in cans? I know this sounds like new home work half way through the original assignment....but that is what DOE did. These are questions that no one has answered. You folks are funded to look. Go ahead and make DOE and DCS wait and pay while we get these answers. This stuff is only going to be around for a quarter million years. Let's get it right!

The no-action alternative also has to be analyzed. If there is another rash of terrorist attacks, especially if it includes nuclear facilities as recent interviews with Al Qaeda operatives suggest, this is what may in fact happen for some time. Your analysis of this situation may be helpful to DOE in the event that this is the outcome. From many perspectives, this is already a credible scenario for now, and the extended future, as long as the material is secure. It is not likely that DOE will make new bombs in Rocky Flats or Pantex, so when it comes to nonproliferation goals, this may in fact be more fruitful than previously thought....assuming one is honest enough to include the US arsenal in the proliferation issue.

We spoke of a "no reactor" alternative for MOX. This is not a joke. We have every intention of seeing that MOX is never used in reactors. We are busy with shut down campaigns now—if we are totally successful, we will be done with the Nuclear Age before DCS can make any MOX fuel...assuming that it will however take a bit longer to accomplish total phase out of nuclear power, we have vowed license amendment intervention and will do everything in our power to block the use of this fuel. That said, there may be other reasons that the MFFF would be built and then not used in reactors. For instance a loss of DOE or congressional commitment to funding of the program, and / or realization by nuclear utilities that MOX really does not make economic sense.

In the event that the MFFF were built and there were no reactors that would use the material, or with the change of heart of a future Green administration, the factory could be used to make "off spec" MOX. This has been suggested by a number of experts as an appropriate feed stock for an immobilization scheme that would use the fuel rods instead of pucks to float the plutonium into a glass log. Since Britain and France have both demonstrated that off-spec MOX is easy to make, this should not be dismissed lightly as a scenario to consider.

One of the most outrageous aspects of the changes in the plutonium program is the massive – 60% !!!! increase in waste that would be generated. This is from "cleaning up" plutonium that would otherwise be

immobilized under the original plan. This is the largest evidence that the current administration has little care about reducing the impacts its programs have on our food, water, air and health.

There is a conspicuous shift in the effective definition of "public health and safety" – away from the protection of individuals and towards a definition broadly based on population productivity and therefore incorporating the concepts of surplus populations and losing all sight of individuals. This is not acceptable. It results in little more than a "bag limit" when it comes to radiological "protection" standards.

This again is a reason that the immobilization alternative must be preserved in the NEPA process. It is a reasonable alternative. It was chosen by DOE and initially funded under the Clinton Administration. It apparently results in 60% less waste in the MOX program, though of course it would have some waste. It is important for folks to see how much.

Finally, it has been acknowledged by NRC repeatedly in this process that yes, indeed, weapons grade plutonium has NOT been used in nuclear power reactors anywhere in the world, ever. The relatively high concentration of plutonium 239 means that this situation is not directly comparable to European MOX experience neither in terms of safety nor in terms of environmental impact. It is imperative that the findings of impact in this study reflect the use of weapons grade plutonium BOTH in the data in-put AND in terms of the assumptions used to model impact. It would be appropriate to use Rocky Flats and SRS data from the making of these same pits to form the assumptions about the impact that weapons grade plutonium has on our environment.

Thank you for this opportunity to comment.

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Mary Fox Olson

Director of the Southeast Office of Nuclear Information and Resource Service